

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 11

Complete If Known

Application Number	10/821,796
Filing Date	April 9, 2004
First Named Inventor	Kocon, Christopher Boguslaw
Art Unit	2811 2815
Examiner Name	Unassigned WDJ
Attorney Docket Number	018865-011710US

**U.S. PATENT DOCUMENTS+**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
291	1	US-3,404,295	10-01-1968	Warner et al.	
	2	US-3,412,297	11-19-1968	Amlinger	
	3	US-3,497,777	02-24-1970	Teszner et al.	
	4	US-3,584,356	02-16-1971	Wilson	
	5	US-4,003,072	01-11-1977	Matsushita et al.	
	6	US-4,300,150	11-10-1981	Colak	
	7	US-4,326,332	04-27-1982	Kenney et al.	
	8	US-4,337,474	06-29-1982	Yukimoto	
	9	US-4,579,621	04-01-1986	Hine	
	10	US-4,636,281	01-13-1987	Buiguez et al.	
	11	US-4,638,344	01-20-1987	Cardwell, Jr.	
	12	US-4,639,761	01-27-1987	Singer et al.	
	13	US-4,698,653	10-06-1987	Cardwell, Jr.	
	14	US-4,716,126	12-29-1987	Cogan	
	15	US-4,746,630	05-24-1988	Hui et al.	
	16	US-4,754,310	06-28-1988	Coe	
	17	US-4,774,556	09-27-1988	Fujii et al.	
	18	US-4,801,986	01-31-1989	Chang et al.	
	19	US-4,821,095	04-11-1989	Temple	
	20	US-4,823,176	04-18-1989	Baliga et al.	
	21	US-4,853,345	08-01-1989	Himelick	
	22	US-4,868,624	09-19-1989	Grung et al.	
	23	US-4,893,160	01-09-1990	Blanchard	
	24	US-4,914,058	04-03-1990	Blanchard	
	25	US-4,941,026	07-10-1990	Temple	
	26	US-4,967,245	10-30-1990	Cogan et al.	
	27	US-4,974,059	11-27-1990	Kinzer	
	28	US-4,990,463	02-05-1991	Mori	
	29	US-4,992,390	02-12-1991	Hsueh-Rong Chang	
	30	US-5,027,180	06-25-1991	Nishizawa et al.	
	31	US-5,071,782	12-10-1991	Mori	
	32	US-5,072,266	12-10-1991	Buluccea	
	33	US-5,079,608	01-07-1992	Wodarczyk et al.	
	34	US-5,105,243	04-14-1992	Nakagawa et al.	
	35	US 5,111,253	05-05-1992	Korman et al.	
	36	US-5,142,640	08-25-1992	Iwanatsu	
	37	US-5,164,325	11-17-1992	Cogan et al.	
	38	US-5,164,802	11-17-1992	Jones et al.	
	39	US-5,216,275	06-01-1993	Chen	
	40	US-5,219,777	06-15-1993	Kang	
	41	US-5,219,793	06-15-1993	Cooper et al.	

Examiner  
Signature

291

Date  
Considered

5-25-05

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

60283240 v1

CLASS  
sub  
CLASS

Substitute for form 1449A/PTO			<b>Complete if Known</b>		
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			Application Number	10/821,796	
			Filing Date	April 9, 2004	
			First Named Inventor	Kocon, Christopher Boguslaw	
			Art Unit	2811 2815	
			Examiner Name	Unassigned WOJ.	
Sheet	2	of	11	Attorney Docket Number	018865-011710US

U.S. PATENT DOCUMENTS+					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
EJ	42	US-5,233,215	08-03-1993	Baliga	
	43	US-5,262,336	11-16-1993	Pike, Jr. et al.	
	44	US-5,268,311	12-07-1993	Euen et al.	
	45	US-5,275,965	01-04-1994	Manning	
	46	US-5,294,824	03-15-1994	Okada	
	47	US-5,298,761	03-29-1994	Cogan et al.	
	48	US-5,300,447	04-05-1994	Anderson	
	49	US-5,326,711	07-05-1994	Malhi	
	50	US-5,350,937	09-27-1994	Yamazaki et al.	
	51	US-5,365,102	11-15-1994	Mehrotra et al.	
	52	US-5,366,914	11-22-1994	Takahashi et al.	
	53	US-5,389,815	02-14-1995	Takahashi	
	54	US-5,405,794	04-11-1995	Kim	
	55	US-5,418,376	05-23-1995	Muraoka et al.	
	56	US-5,424,231	06-13-1995	Yang	
	57	US-5,429,977	07-04-1995	Lu et al.	
	58	US-5,430,311	07-04-1995	Murakami et al.	
	59	US-5,430,324	07-04-1995	Bencuya	
	60	US-5,436,189	07-25-1995	Beasom	
	61	US-5,438,215	08-01-1995	Tihanyi	
	62	US-5,442,214	08-15-1995	Yang	
	63	US-5,454,435	07-18-1995	Baliga	
	64	US-5,473,176	12-05-1995	Kakumoto	
	65	US-5,473,180	12-05-1995	Ludikhuize	
	66	US-5,474,943	12-12-1995	Hshieh et al.	
	67	US-5,519,245	05-21-1996	Tokura et al.	
	68	US-5,541,425	07-30-1996	Nishihara	
	69	US-5,554,862	09-10-1996	Omura et al.	
	70	US-5,567,634	10-22-1996	Hebert et al.	
	71	US-5,567,635	10-22-1996	Acovic et al.	
	72	US-5,572,048	11-05-1996	Sugawara	
	73	US-5,576,245	11-19-1996	Cogan et al.	
	74	US-5,578,851	11-26-1996	Hshieh et al.	
	75	US-5,581,100	12-03-1996	Ajit	
	76	US-5,583,065	12-10-1996	Miwa	
	77	US-5,592,005	01-07-1997	Floyd et al.	
	78	US-5,595,927	01-21-1997	Chen et al.	
	79	US-5,597,765	01-28-1997	Yilmaz et al.	
	80	US-5,605,852	02-25-1997	Bencuya	
	81	US-5,623,152	04-22-1997	Majumdar et al.	
EJ	82	US-5,629,543	05-13-1997	Hshieh et al.	
Examiner Signature	EJ		Date Considered	5-27-05	

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO			<b>Complete if Known</b>		
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			Application Number	10/821,796	
			Filing Date	April 9, 2004	
			First Named Inventor	Kocon, Christopher Boguslaw	
			Art Unit	2811 2815	
			Examiner Name	Unassigned Wq.	
Sheet	3	of	11	Attorney Docket Number	018865-011710US

U.S. PATENT DOCUMENTS+					
Examiner Initials*	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code <sup>2</sup> (if known)			
EN	83	US-5,637,898	08-10-1997	Baliga	
	84	US-5,639,676	06-17-1997	Hsieh et al.	
	85	US-5,640,034	07-17-1997	Satwinder Malhi	
	86	US-5,648,670	07-15-1997	Blanchard	
	87	US-5,656,843	08-12-1997	Goodyear et al.	
	88	US-5,665,619	09-09-1997	Kwan et al.	
	89	US-5,670,803	09-23-1997	Beilstein, Jr. et al.	
	90	US-5,689,128	11-18-1997	Hsieh et al.	
	91	US-5,693,569	12-02-1997	Ueno	
	92	US-5,705,409	01-06-1998	Witek	
	93	US-5,710,072	01-20-1998	Krautschneider et al.	
	94	US-5,714,781	02-03-1998	Yamamoto et al.	
	95	US-5,719,409	02-17-1998	Singh et al.	
	96	US-5,770,878	06-23-1998	Beasom	
	97	US-5,776,813	07-07-1998	Huang et al.	
	98	US-5,780,343	07-14-1998	Bashir	
	99	US-5,801,417	09-01-1998	Tsang et al.	
	100	US-5,877,528	03-02-1999	So	
	101	US-5,879,971	03-09-1999	Witek	
	102	US-5,879,994	03-09-1999	Kwan et al.	
	103	US-5,895,951	04-20-1999	So et al.	
	104	US-5,895,952	04-20-1999	Darwish et al.	
	105	US-5,897,343	04-27-1999	Mathew et al.	
	106	US-5,897,360	04-27-1999	Kawaguchi	
	107	US-5,900,663	05-04-1999	Johnson et al.	
	108	US-5,906,680	05-25-1999	Meyerson	
	109	US-5,917,216	06-29-1999	Floyd et al.	
	110	US-5,929,481	07-27-1999	Hsieh et al.	
	111	US-5,943,581	08-24-1999	Lu et al.	
	112	US-5,949,104	09-07-1999	D'Anna et al.	
	113	US-5,949,124	09-07-1999	Hadizad et al.	
	114	US-5,959,324	09-28-1999	Kohyama	
	115	US-5,960,271	09-28-1999	Wollesen et al.	
	116	US-5,972,741	10-26-1999	Kubo et al.	
	117	US-5,973,360	10-26-1999	Tihanyi	
	118	US-5,976,936	11-02-1999	Miyajima et al.	
	119	US-5,981,344	11-09-1999	Hsieh et al.	
	120	US-5,981,996	11-09-1999	Fujishima	
	121	US-5,998,833	12-07-1999	Baliga	
EN	122	US-6,005,271	12-21-1999	Hsieh	
	123	US-6,008,097	12-28-1999	Yoon et al.	
Examiner Signature	EN		Date Considered	5-25-05	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

60283240 v1

CLASS  
Sub  
CLASS

Substitute for form 1449A/PTO			<b>Complete If Known</b>		
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			Application Number	10/821,796	
			Filing Date	April 9, 2004	
			First Named Inventor	Kocon, Christopher Boguslaw	
			Art Unit	2811 2815	
			Examiner Name	Unassigned WDJ	
Sheet	4	of	11	Attorney Docket Number	018865-011710US

U.S. PATENT DOCUMENTS+					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
EON	124	US-6,011,298	01-04-2000	Blanchard	
	125	US-6,015,727	01-18-2000	Wanlass	
	126	US-6,020,250	02-01-2000	Kenny et al.	
	127	US-6,034,415	05-07-2000	Johnson et al.	
	128	US-6,037,202	03-14-2000	Witek	
	129	US-6,037,628	03-14-2000	Huang	
	130	US-6,037,632	03-14-2000	Omura et al.	
	131	US-6,040,600	03-21-2000	Uenishi et al.	
	132	US-6,048,772	04-11-2000	D'Anna	
	133	US-6,049,108	04-11-2000	Williams et al.	
	134	US-6,057,558	05-02-2000	Yamamoto et al.	
	135	US-6,063,678	05-16-2000	D'Anna	
	136	US-6,064,088	05-16-2000	D'Anna	
	137	US-6,066,878	05-23-2000	Neilson	
	138	US-6,081,009	08-27-2000	Neilson	
	139	US-6,084,264	07-04-2000	Darwish	
140	US-6,084,268	07-04-2000	de Frésart et al.		
141	US-6,087,232	07-11-2000	Kim et al.		
142	US-6,096,608	08-01-2000	Williams		
143	US-6,097,063	08-01-2000	Fujihira		
144	US-6,103,578	08-15-2000	Uenishi et al.		
145	US-6,104,054	08-15-2000	Corsi et al.		
146	US-6,110,799	08-29-2000	Huang		
147	US-6,114,727	09-05-2000	Ogura et al.		
148	US-6,137,152	10-24-2000	Wu		
149	US-6,150,697	11-21-2000	Teshigahara et al.		
150	US-6,156,606	12-05-2000	Michaelis		
151	US-6,156,611	12-05-2000	Lan et al.		
152	US-6,163,052	12-19-2000	Liu et al.		
153	US-6,165,870	12-26-2000	Shim et al.		
154	US-6,168,983	01-02-2001	Rumennik et al.		
155	US-6,168,996	01-02-2001	Numazawa et al.		
156	US-6,171,935	01-09-2001	Nance et al.		
157	US-6,174,773	01-16-2001	Fujishima		
158	US-6,174,785	01-16-2001	Parekh et al.		
159	US-6,184,545	02-06-2001	Werner et al.		
160	US-6,184,555	02-06-2001	Tihanyi et al.		
161	US-6,188,104	02-13-2001	Choi et al.		
162	US-6,188,105	02-13-2001	Kocon et al.		
163	US-6,190,978	02-20-2001	D'Anna		
164	US-6,191,447	02-20-2001	Baliga		

Examiner Signature	EON	Date Considered	5-25-05
-----------------------	-----	--------------------	---------

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

60283240 v1

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete If Known</b>		
			Application Number	10/821,796	
			Filing Date	April 9, 2004	
			First Named Inventor	Kocon, Christopher Boguslaw	
			Art Unit	2811-2815	
Examiner Name	Unassigned Woy				
Sheet	5	of	11	Attorney Docket Number	018865-011710US

U.S. PATENT DOCUMENTS+					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code <sup>2</sup> (if known)			
EM	165	US-6,198,127	03-06-2001	Kocon	
	166	US-6,201,279	03-13-2001	Pfirsch	
	167	US-6,204,097	03-20-2001	Shen et al.	
	168	US-6,207,994	03-27-2001	Rumennik et al.	
	169	US-6,222,233	04-24-2001	D'Anna	
	170	US-6,225,649	05-01-2001	Minato	
	171	US-6,228,727	05-08-2001	Lim et al.	
	172	US-6,239,464	05-29-2001	Tsuchitani et al.	
	173	US-6,265,269	07-24-2001	Chen et al.	
	174	US-6,271,100	08-07-2001	Ballantine et al.	
	175	US-6,271,552	08-07-2001	D'Anna	
	176	US-6,271,562	08-07-2001	Deboy et al.	
	177	US-6,274,904	08-14-2001	Tihanyi	
	178	US-6,274,905	08-14-2001	Mo	
	179	US-6,277,706	08-21-2001	Ishikawa	
	180	US-6,285,060	09-04-2001	Korec et al.	
	181	US-6,291,298	09-18-2001	Williams et al.	
	182	US-6,291,856	09-18-2001	Miyasaka et al.	
	183	US-6,294,818	09-25-2001	Fujihiro	
	184	US-6,297,534	10-02-2001	Kawaguchi et al.	
	185	US-6,303,969	10-16-2001	Tan	
	186	US-6,307,246	10-23-2001	Nitta et al.	
	187	US-6,309,920	10-30-2001	Laska et al.	
	188	US-6,313,482	11-06-2001	Baliga	
	189	US-6,326,656	12-04-2001	Tihanyi	
	190	US-6,337,499	01-08-2002	Werner	
	191	US-6,346,464	02-12-2002	Takeda et al.	
	192	US-6,346,469	02-12-2002	Greer	
	193	US-6,351,018	02-26-2002	Sapp	
	194	US-6,353,252	03-05-2002	Yasuhara et al.	
	195	US-6,359,308	03-19-2002	Hijzen et al.	
	196	US-6,362,112	03-26-2002	Hamerski	
	197	US-6,362,505	03-26-2002	Tihanyi	
	198	US-6,365,462	04-02-2002	Baliga	
	199	US-6,365,930	04-02-2002	Schillaci et al.	
	200	US-6,368,920	04-09-2002	Beasom	
	201	US-6,368,921	04-09-2002	Hijzen et al.	
	202	US-6,376,314	04-23-2002	Jerred	
	203	US-6,376,878	04-23-2002	Kocon	
EM	204	US-6,376,890	04-23-2002	Tihanyi	
	205	US-6,384,456	05-07-2002	Tihanyi	
Examiner Signature	EM		Date Considered	5-25-05	

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

60283240 v1

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete If Known</b>		
			Application Number	10/821,796	
			Filing Date	April 9, 2004	
			First Named Inventor	Kocon, Christopher Boguslaw	
			Art Unit	2811-2815	
Examiner Name	Unassigned	Woj			
Sheet	6	of	11	Attorney Docket Number	018865-011710US

U.S. PATENT DOCUMENTS+					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code <sup>2</sup> (if known)			
ES	206	US-6,388,286	05-14-2002	Baliga	
	207	US-6,388,287	05-14-2002	Deboy et al.	
	208	US-6,400,003	06-04-2002	Huang	
	209	US-6,429,481 B1	08-06-2002	Mo et al.	
	210	US-6,433,385	08-13-2002	Kocon et al.	
	211	US-6,436,779	08-20-2002	Hurkx et al.	
	212	US-6,437,399	08-20-2002	Huang	
	213	US-6,441,454	08-27-2002	Hijzen et al.	
	214	US-6,452,230	09-17-2002	Boden, Jr.	
	215	US-6,465,304	10-15-2002	Blanchard et al.	
	216	US-6,465,843	10-15-2002	Hirler et al.	
	217	US-6,465,869	10-15-2002	Ahlers et al.	
	218	US-6,472,708	10-29-2002	Hshieh et al.	
	219	US-6,472,678	10-29-2002	Hshieh et al.	
	220	US-6,475,884	11-05-2002	Hshieh et al.	
	221	US-6,476,443	11-05-2002	Kinzer	
	222	US-6,479,352	11-12-2002	Blanchard	
	223	US-6,489,652 B1	12-03-2002	Jeon et al.	
	224	US-6,501,146	12-31-2002	Harada	
	225	US-2001/0023961 A1	09-27-2001	Hsieh et al.	
	226	US-2001/0028083 A1	10-11-2001	Onishi et al.	
	227	US-2001/0032998 A1	10-25-2001	Iwamoto et al.	
	228	US-2001/0041400 A1	11-15-2001	Ren et al.	
	229	US-2001/0049167 A1	12-06-2001	Madson	
	230	US-2001/0050394 A1	12-13-2001	Onishi et al.	
	231	US-2002/0009832 A1	01-24-2002	Blanchard	
	232	US-2002/0014658 A1	02-07-2002	Blanchard	
	233	US-2002/0066924 A1	06-06-2002	Blanchard	
	234	US-2002/0070418 A1	06-13-2002	Kinzer et al.	
	235	US-2003/0060013 A1	03-27-2003	Marchant	
	236	US-2003/0100933 A1	08-01-2002	Marchant	
	237	US-2003/0132450 A1	07-17-2003	Minato et al.	
EN	238	US-2003/0193067 A1	10-16-2003	Kim	

Examiner Signature	<i>EN</i>	Date Considered	5-25-05
--------------------	-----------	-----------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

60283240 v1

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete If Known</b>			
		Application Number	10/821,796		
		Filing Date	April 9, 2004		
		First Named Inventor	Kocon, Christopher Boguslaw		
		Art Unit	2811 2815		
Examiner Name	Unassigned - WDJ				
Sheet	7	of	11	Attorney Docket Number	018865-011710US

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>2</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
EOL	239	DE	4300806 C1	12-23-1993	Siemens AG		<input checked="" type="checkbox"/>
	240	DE	19736981 A1	08-20-1998	Mitsubishi Denki		<input checked="" type="checkbox"/>
	241	EP	0747967 B1	02-27-2002	ST Microelectronics Inc.		<input type="checkbox"/>
	242	EP	0975024 A2	01-02-2000	Fuji Electric Co. LTD.		<input type="checkbox"/>
	243	EP	1026749 A1	08-09-2000	Mitsubishi Denki Kabushiki		<input type="checkbox"/>
	244	EP	1054451 A2	11-22-2000	Intersil Corporation		<input type="checkbox"/>
	245	EP	1205980 A1	05-15-2002	Infineon Technologies AG		<input type="checkbox"/>
	246	JP	01-192174 A	08-02-1989	Hitachi LTD.		<input checked="" type="checkbox"/>
	247	JP	05226638 A	09-03-1993	Wakatabe et al.		<input checked="" type="checkbox"/>
	248	JP	62-069562	03-30-1987	Mitsubishi Electric Corp		<input checked="" type="checkbox"/>
	249	JP	63-186475	08-02-1988	Nissan Motor Co. LTD.		<input checked="" type="checkbox"/>
	250	JP	63-288047	11-25-1988	Toshiba Corp.		<input checked="" type="checkbox"/>
	251	JP	64-022051	01-25-1989	Matsushita Electric Ind		<input checked="" type="checkbox"/>
	252	JP	2000-040822	02-08-2000	Fuji Electric Co. LTD.		<input checked="" type="checkbox"/>
	253	JP	2000-040872	02-08-2000	Senju Metal IND CO LTD.		<input checked="" type="checkbox"/>
	254	JP	2000-156978 A	06-06-2000	Fuji Electric Co. LTD.		<input checked="" type="checkbox"/>
	255	JP	2000-277726 A	10-06-2000	Toshiba Corp.		<input checked="" type="checkbox"/>
	256	JP	2000-277728 A	10-06-2000	NEC Kansai LTD.		<input checked="" type="checkbox"/>
	257	JP	2001-015448	01-19-2001	Toshiba Corp.		<input checked="" type="checkbox"/>
	258	JP	2001-015752	01-19-2001	Fuji Electric Co. LTD.		<input checked="" type="checkbox"/>
	259	JP	2001-102577 A	04-13-2001	Toshiba Corp.		<input checked="" type="checkbox"/>
	260	JP	2001-111041 A	04-20-2001	Fuji Electric Co. LTD.		<input checked="" type="checkbox"/>
	261	JP	2001-135819 A	05-18-2001	Fuji Electric Co. LTD.		<input checked="" type="checkbox"/>
	262	JP	2001-144292 A	05-25-2001	Denso Corp.		<input checked="" type="checkbox"/>
	263	JP	2001-244461 A	09-07-2001	Toyota Central Res & Dev Lab INC.		<input checked="" type="checkbox"/>
	264	JP	2001-313391 A	12-20-2001	S. Takahiro et al.		<input checked="" type="checkbox"/>
	265	JP	2002-083976 A	03-22-2002	Naito et al.		<input checked="" type="checkbox"/>
266	PCT	WO 00/33386 A2	06-08-2000	Koninklijke Philips Electronics		<input type="checkbox"/>	
267	PCT	WO 00/68997 A1	11-16-2000	C.P. Clare Corporation		<input type="checkbox"/>	
268	PCT	WO 00/68998 A1	11-16-2000	C.P. Clare Corporation		<input type="checkbox"/>	
269	PCT	WO 00/75965 A2	12-14-2000	General Semiconductor, Inc.		<input type="checkbox"/>	
270	PCT	WO 01/06550 A1	01-23-2001	Koninklijke Philips Electronics		<input type="checkbox"/>	
271	PCT	WO 01/06557 A1	01-25-2001	Koninklijke Philips Electronics		<input type="checkbox"/>	
272	PCT	WO 01/45155 A1	06-21-2001	Koninklijke Philips Electronics		<input type="checkbox"/>	
273	PCT	WO 01/59847 A2	08-16-2001	Koninklijke Philips Electronics		<input type="checkbox"/>	

Examiner Signature	<i>EOL</i>	Date Considered	5-25-05
--------------------	------------	-----------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete If Known</b>		
			Application Number	10/821,796	
			Filing Date	April 9, 2004	
			First Named Inventor	Kocon, Christopher Boguslaw	
			Art Unit	2811 2815	
Examiner Name	Unassigned Woj.				
Sheet	8	of	11	Attorney Docket Number	018865-011710US

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>2</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup> <small>Kind Code<sup>5</sup> (if known)</small>				
EN	274	PCT	WO 01/71815	09-27-2001	Koninklijke Philips Electronics	/	<input type="checkbox"/>
	275	PCT	WO 01/95385 A1	12-13-2001	General Semiconductor, Inc.	/	<input type="checkbox"/>
	276	PCT	WO 01/95398 A1	12-13-2001	General Semiconductor, Inc.	/	<input type="checkbox"/>
	277	PCT	WO 02/01644 A2	01-03-2002	Silicon Wireless Corporation	/	<input type="checkbox"/>
EN	278	PCT	WO 02/047171 A1	06-13-2002	International Rectifier Corporation	/	<input type="checkbox"/>
							<input type="checkbox"/>

CLASS  
SUB  
CLASS

Examiner Signature	EN	Date Considered	5-25-05
-----------------------	----	--------------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.  
60283240 v1



Substitute for form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	10/821,796		
		Filing Date	April 9, 2004		
		First Named Inventor	Kocon, Christopher Boguslaw		
		Art Unit	2811 2815		
		Examiner Name	Unassigned Waj		
Sheet	9	of	11	Attorney Docket Number	018865-011710US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
ED	279	BAI et al., "Novel automated optimization of power MOSFET for 12V input, high-frequency DC-DC converter," <i>International Symposium on Power Semiconductors and ICs, Technical Digest</i> , (2003), pp. 366-369.	
	280	BALIGA "New Concepts in Power Rectifiers," <i>Physics of Semiconductor Devices, Proceedings of the Third Int'l Workshop, Madras (India), Committee on Science and Technology in Developing Countries (1985)</i> , pp. 471-481.	
	281	BALIGA "Options for CVD of Dielectrics Include Low-k Materials," <i>Technical Literature from Semiconductor International</i> , June 1998, 4 pages total.	
	282	BALIGA et al., "Improving the reverse recovery of power MOSFET integral diodes by electron irradiation," (December 1983) <i>Solid State Electronics</i> , Vol. 26, No. 12, pp. 1133-1141.	
	283	BROWN et al. Novel Trench Gate Structure Developments Set the Benchmark for Next Generation Power MOSFET Switching Performance. <i>Power Electronics - May 2003 Proceedings (PCIM)</i> , Nuremberg, Vol. 47, pp. 275-278.	
	284	BULUCEA "Trench DMOS Transistor Technology For High Current (100 A Range) Switching" <i>Solid-State Electronics</i> Vol.34 No. pp.493-507 (1991)	
	285	CHANG et al. "Numerical and experimental Analysis of 500-V Power DMOSFET with an Atomic-Lattice Layout," <i>IEEE Transactions on Electron Devices</i> 36:2623 (1989).	
	286	CHANG et al. "Self-Aligned UMOSFET's with a Specific On-Resistance of 1mΩ cm <sup>2</sup> ," <i>IEEE Transactions on Electron Devices</i> 34:2329-2334 (1987).	
	287	CHENG et al., "Fast reverse recovery body diode in high-voltage VDMOSFET using cell-distributed schottky contacts," (May 2003) <i>IEEE Transactions on Electron Devices</i> , Vol. 50, No. 5, pp. 1422-1425.	
	288	"CoolMOS™ the second generation," <i>Infineon Technologies product information</i> , (2000), 2 pages total.	
	289	CURTIS et al. "APCVD TEOS: 03 Advanced Trench Isolation Applications," <i>Semiconductor Fabtech 9th Edition</i> (1999) 8 pages total.	
	290	DARWISH et al. A New Power W-Gated Trench MOSFET (WMOSFET) with High Switching Performance. <i>ISPSD Proceedings - April 2003, Cambridge</i> , 4 pages total.	
	291	DJEKIC, O. et al., "High frequency synchronous buck converter for low voltage applications," (1998) <i>Proc. IEEE Power Electronics Specialist Conf. (PESC)</i> , pp. 1248-1254.	
	292	FUJIIHARA "Theory of Semiconductor Superjunction Devices" <i>Jpn. J. Appl. Phys.</i> Vol 36 pp. 6254-6262 (1997).	
	293	GAN et al. "Poly Flanked VDMOS (PFVDMOS): A Superior Technology for Superjunction Devices," <i>IEEE Power Electronics Specialists Conference</i> , 17-22 June 2001, Vancouver, Canada (2001), 4 pages total.	
ED	294	GLENN et al. "A Novel Vertical Deep Trench RESURF DMOS (VTR-DMOS)" <i>IEEE ISPD 2000</i> , May 22-25, Toulouse France, pp. 197-200.	

Examiner Signature	ED	Date Considered	5-28-05
--------------------	----	-----------------	---------

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/821,796
		Filing Date	April 9, 2004
		First Named Inventor	Kocon, Christopher Boguslaw
		Art Unit	2811 <sup>2818</sup>
		Examiner Name	Unassigned <sup>Woj</sup>
Sheet	10	of	11
		Attorney Docket Number	018865-011710US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
EN	295	"IR develops CoolMOS™ -equivalent technology, positions it at the top of a 3-tiered line of new products for SMPS," International Rectifiers company information available at <a href="http://www.irf.com">http://www.irf.com</a> (1999) 3 pages total.	
	296	KAO et al. "Two Dimensional Thermal Oxidation of Silicon-I. Experiments," <u>IEEE Transactions on Electron Devices</u> , Vol. ED-34, No. 5, May 1987, pp. 1008-1017.	
	297	KAO et al. "Two Dimensional Thermal Oxidation of Silicon-II. Modeling Stress Effects in Wet Oxides," <u>IEEE Transactions on Electron Devices</u> , Vol. ED-35, No. 1, January 1988, pp. 25-37.	
	298	KASSAKIAN, J.G. et al., "High-frequency high-density converters for distributed power supply systems," (April 1988) <i>Proceedings of the IEEE</i> , Vol. 76, No. 4, pp. 362-376.	
	299	KORMAN, C.S. et al., "High performance power DMOSFET with integrated schottky diode," (1989) <i>Proc. IEEE Power Electronics Specialist Conf. (PESC)</i> , pp. 176-179.	
	300	LORENZ et al., "COOL MOS- An important milestone towards a new power MOSFET generation" <i>Power Conversion</i> pp. 151-160 (1988).	
	301	MAKSIMOVIC, A.M. et al., "Modeling and simulation of power electronic converters," (June 2001) <i>Proceedings of the IEEE</i> , Vol. 89, No. 6, pp. 898-912.	
	302	MEHROTRA, M. et al., "Very low forward drop JBS rectifiers fabricated using submicron technology," (November 1993) <i>IEEE Transactions on Electron Devices</i> , Vol. 40, No. 11, pp. 2131-2132.	
	303	MOGHADAM "Delivering Value Around New Industry Paradigms," <i>Technical Literature from Applied Materials</i> , pages 1-11, Volume 1, Issue 2, November 1999.	
	304	PARK et al., "Lateral Trench Gate Super-Junction SOI-LDMOSFETs with Low On-Resistance," <i>Institute for Microelectronics, University of Technology Vienna, Austria</i> (2002), pp. 283-285.	
	305	SAKAI et al., "Experimental investigation of dependence of electrical characteristics of device parameters in trench MOS barrier, schottky diodes," (1998) <i>International Symposium on Power Semiconductors and ICs, Technical Digest</i> , pp. 293-296.	
	306	SHENAI et al., "Current transport mechanisms in atomically abrupt metal-semiconductor interfaces," (April 1988) <i>IEEE Transactions on Electron Devices</i> , Vol. 35, No. 4, pp. 468-482.	
	307	SHENAI et al., "Monolithically integrated power MOSFET and schottky diode with improved reverse recovery characteristics," (April 1990) <i>IEEE Transactions on Electron Devices</i> , Vol. 37, No. 4, pp. 1167-1169.	
	308	SHENOY et al. "Analysis of the Effect of Charge Imbalance on the Static and Dynamic Characteristic of the Super Junction MOSFET," <i>IEEE International Symposium on Power Semiconductor Devices</i> 1999, pp. 99-102 (1999).	
	309	SINGER "Empty Spaces in Silicon (ESS): An Alternative to SOI," <i>Semiconductor International</i> page 42, December 1999.	
EN	310	TABISZ et al., "A MOSFET resonant synchronous rectifier for high-frequency dc/dc converters," (1990) <i>Proc. IEEE Power Electronics Specialist Conf. (PESC)</i> , pp. 769-779.	

Examiner Signature	EN	Date Considered	5-25-05
--------------------	----	-----------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	10/821,796		
		Filing Date	April 9, 2004		
		First Named Inventor	Kocon, Christopher Boguslaw		
		Art Unit	2815		
		Examiner Name	Unassigned Woj.		
Sheet	11	of	11	Attorney Docket Number	018865-011710US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
EH	311	Technical Literature from Quester Technology, Model APT-4300 300mm Atmospheric TEOS/Ozone CVD System, (unknown date), 3 pages total.	
	312	Technical Literature from Quester Technology, Model APT-6000 Atmospheric TEOS-Ozone CVD System, (unknown date), 2 pages total.	
	313	Technical Literature from Silicon Valley Group Thermal Systems, APNext, High Throughput APCVD Cluster Tool for 200 mm/300 mm Wafer Processing, (unknown date), 2 pages total.	
	314	TU et al. "On the reverse blocking characteristics of schottky power diodes," (December 1992) <i>IEEE Transactions on Electron Devices</i> . Vol. 39, No. 12, pp. 2813-2814 2 pages total.	
	315	UEDA et al. "An Ultra-Low On-Resistance Power MOSFET Fabricated by Using a Fully Self-Aligned Process," <i>IEEE Transactions on Electron Devices</i> 34:926-930 (1987).	
	316	WILAMOWSKI "Schottky Diodes with High Breakdown Voltages," <i>Solid-State Electronics</i> 26:491-493 (1983).	
	317	WOLF, "Silicon Processing for The VLSI Era" Vol. 2 Process Integration Lattice Press (1990), 3 pages total.	
EH	318	YAMASHITA et al., "Conduction Power loss in MOSFET synchronous rectifier with parallel-connected schottky barrier diode, (July 1998) <i>IEEE Transactions on Power electronics</i> , Vol. 13, No. 4, pp. 667-673.	

Examiner Signature		Date Considered	5-25-05
-----------------------	---	--------------------	---------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.